**ROBORACE**

**NO. OF PARTICIPANTS IN ONE TEAM : min 2 and max 4**

**Rules:**

1. Maximum power supply : 24 V.

2. Maximum size of bot: 30cm×20cm× 15 cm.

3. The bot can be wired or wireless. In case of wired robot, length of wire should not be greater than 5m. In case the robot is wireless or has sensors, it should have only a few sensors that are necessary such as ultrasonic sensor and bluetooth module.

4. Weight of Robot should not exceed 6 kg.

5. Ready-made robots are not allowed, they should be self constructed.

6. The robot should not damage the arena and should not leave behind any of its parts before the run.

7. Penalty points will be awarded for:

* Touching the bot to reposition it
* If bot moves out of the specified path

8. There are some obstacles which are not to be touched and will fetch penalty points if done.

9. Every team will be allowed to miss maximum of 2 obstacles. Penalty points will be awarded accordingly.

10. The team who covers the maximum number of checkpoints in the specified time will be the winning team. If  two teams cover equal number of checkpoints, any obstacle crossed/not crossed after the checkpoint won’t be considered. Winning team will be the one who crossed the last checkpoint in the minimum time.

11. The team should carry their own extension boards.

12.  Judge's decision will be considered final.

13. Use of mobile phones for recording will not be allowed. Teams are advised to keep their mobile phones aside except the ones who are operating the robot with the mobiles, that too limited use is allowed. If at any point, teams try to use phones for recording, they will be disqualified immediately.

**ROBOMAZE**

**NO. OF PARTICIPANTS IN ONE TEAM : min 2 and max 4**

**Rules:**

1. Maximum power supply : 24 V.

2. Maximum size of bot: 30cm×20cm× 15 cm.

3. The bot can be wired or wireless. In case of wired robot, length of wire should not be greater than 5m. In case the robot is wireless or has sensors, it should have only a few sensors that are necessary such as ultrasonic sensor and bluetooth module.

4. Weight of Robot should not exceed 6 kg.

5. Ready made robots are not allowed, they should be self constructed.

6. The robot should not damage the arena and should not leave behind any of its parts before the run.

7. Penalty points will be awarded for:

* Touching the bot to reposition it
* Touching the walls of the maze.

8.  Judge's decision will be considered final.

9. The final destination will have a flag. The bot has to reach the flag. The team who does this in the minimum time will be the winning team.

10. The team should carry their own extension boards.

11. Any team who enters the competition area without its turn will be disqualified.

12. Use of mobile phones for recording will not be allowed. Teams are advised to keep their mobile phones aside except the ones who are operating the robot with the mobiles, that too limited use is allowed. If at any point, teams try to use phones for recording, they will be disqualified immediately.

**DIGIT CLUSTER**

**NO. OF PARTICIPANTS IN ONE TEAM : 2 max**

**Rules :**

* The participants will be asked to pick up a chit containing a 5 digit code.
* After picking up the code, they will have to rotate the wheel and select the question chit from the bowl with the same number as obtained from the wheel.
* The answer is between 0-9. The participants will have to answer the question within 90 seconds. The time starts once they open the question chit.
* But the game has a twist. The questions being asked are all based on your LUCK.
* If the answer is correct and is present in the code, then it is striked off the code. There will be 5 rounds giving you the opportunity to strike off maximum number of digits.
* If you have strong LUCK, your answer will result into a digit which is present in your code.
* The team with maximum number of striked digits will be declared as the winner.
* Use of mobile phone is not allowed.

**TECHNOVATE**

**NO. OF PARTICIPANTS IN ONE TEAM : min 2 and max 4**

**RULES :**

Teams shall receive the problem statement on the spot.

* **Round 1 : ( Screening Round )** Project Plan

It includes submission of a 1 page writeup describing the approach towards the problem.

* **Final round :** Presentations

The selected teams will have to present their ideas to the panel. Use of charts, presentations etc. are not compulsory.

* **Presentation time :** 15 minutes per team ( including ques/ans session of 5 min. at the end ).

**Judging criterian :**

* Originality.
* Impact and real life applicability.
* Technical innovation.

**TECHQUEST**

**NO. OF PARTICIPANTS IN ONE TEAM : min 2 and max 4**

**Rules :**

* Come and display your projects and innovations based on arduino, nodemcu and raspberry pi platforms. Project theme will be open.
* Presentation time for each team is 10 min.
* The participants can use charts, presentations etc. to make their project presentable.
* The project will be judged on the basis of technical innovation and its implementation and practicality in real life scenario and not entirely on the basis of platform that is being used.

**DRONE MAZE**

**NO. OF PARTICIPANTS IN ONE TEAM : min 2 and max 5**

**Rules :**

* Maximum number of participants in each team : 4
* Only a single operating individual is permitted
* Maximum permissible dimensions of drone: 17 x 17 x 3.2 inches
* Maximum weight of drone: 2 kgs
* The drone should be self constructed and not a toy bought from market.
* Drone must successfully traverse the entire track by avoiding all obstacles in minimum possible time.
* However, each touch/collision will result in addition of 30 seconds to the total flight time of drone.
* Judgment criteria will also depend on the Take-off and Landing scores of each team. It should be smooth for aquiring the maximum points.
* A drone may be allowed to restart its flight if and only if the organizing team declares the issue to be a technical fault/error.
* Personal video shooting is not allowed. If at any point, teams try to use phones/ camera for recording, they will be disqualified immediately.
* Teams are advised to keep their mobile phones aside except the ones who are operating the robot with the mobiles, that too limited use is allowed.

\*\*Final decision will be declared by the organizing team. Any argument will lead to disqualification of teams.

**ELECTRO ENIGMA**

**NO. OF PARTICIPANTS IN ONE TEAM : min 2 and max 4**

**Rules :**

* There will be packets containing some electronic components. These packets will be numbered. The teams have to pick a chit from the bowl and the number written on it will represent their packet.
* **Round 1 :** The teams have to formulate an idea for a prototype that can be made using the components present in the packet only. The idea should be creative and has to be presented as a writeup on 1 A4 sheet. The teams will be given 1 hour for this round.
* **Top teams will be selected for Round 2 based on their idea by the judges.**
* **Round 2 :** The teams selected will have to build a prototype of their idea along with a powerpoint presentation. The team will be given 3 hours for this.
* After 3 hours, the teams have to present their working model and presentation to the judges.
* Final decision depends on the judges.

**Judging criteria :**

* Originality
* Impact and real-life application
* Creativity and spontaneity
* Technical innovation
* Presentation

**AR/ VR GAME-PLAY**

This is event involves interesting AR/ VR games. So rules would vary depending upon the game.